



March 1, 2016

Industrial Commission of North Dakota
Attn: Karlene Fine and Brent Brannan
State Capitol 14th Floor
600 E Boulevard Avenue Dept 405
Bismarck, ND 58505-0840

RE: Contract No. G-031-061 Monthly Report for February 1, 2016

Dear Karlene and Brent:

Please find a summary of project progress, below.

The two-week lesson plan packages for both 4th and 8th grade *ENERGY: Powered by North Dakota* have been uploaded on the [activities pages](#) of the website and distributed to all North Dakota Studies teachers in North Dakota (approximately 800 teachers). The lesson plan packages are provided in both PDF and editable Word documents, so teachers can tailor the format as needed. Highlights include:

- A “parent letter” for teachers to send home when starting the unit.
- Specific energy lessons, along with supporting materials, and rubrics for final projects and presentations.
- Skills such as locating sources of power on a map and discussing location, vocabulary, and problem solving.
- Alignment with *North Dakota Science and Social Studies Content and Achievement Standards for Grade 4 and 8* as outlined by the North Dakota Department of Public Instruction, as well as *Common Core Standards in English Language Arts – Literacy in History/Social Studies*.

Level One:

Day 1: What is Energy?	Day 2: Petroleum and Natural Gas	Day 3: Energy From Coal	Day 4: Energy From Wind, Hydro and Solar	Day 5: Biofuels, Geothermal, and Recovered Energy
Day 6: Balance of Power	Day 7: Energized Careers	Day 8: Energy Presentation Intro and Group Work	Day 9: Group Work on Energy Presentations	Day 10: Student Energy Presentations

Level Two:

Day 1: What is Energy?	Day 2: Types of Energy	Day 3: Energy in an Envelope Project Work Day	Day 4: Energy in an Envelope Project Work Day	Day 5: Energy in an Envelope Project Work Day
Day 6: Energy in an Envelope Project Presentations	Day 7: Energy Use and M&M Activity	Day 8: Careers in Energy	Day 9: Careers in Energy	Day 10: Energy Assessment

I continue to work with the State Historical Society of North Dakota (SHSND) on smartboard lessons, which are coming along very well. We continue to see some challenges in development of the activity kits, especially considering a short window before the grant period ends on March 31, 2016. We are evaluating a scaled back version that would still be valuable for teachers that implement the smartboard lessons, in addition to other resources that would reach a broader audience, such as the incorporation of additional animations for challenging concepts for students.

As we approach the end of the grant period, I will be lining up additional outreach to keep *ENERGY: Powered by North Dakota* on teachers' radars as they approach the end of the semester. I attended the North Dakota Homeschoolers Convention on February 26 to reach that audience via an exhibit booth and a presentation to attendees on the curriculum. Together with the SHSND, we saw a lot of traffic over the two day period and more than 1,200 people were in attendance. I have also been invited to speak and share information related to the curriculum at the summer teachers' seminars of both the Lignite Energy Council and the North Dakota Petroleum Council.

Erik Holland, Curator of Education at the SHSND, and I have invited the EmPower Commission to hold their April meeting at the Heritage Center Museum so that we can provide a wrap-up on the energy curriculum project and showcase the curriculum in the interpretive galleries and the enhancements to the resources. We are looking forward to this opportunity to share with the energy industry and funders how their investment has provided a very valuable resource for teachers and students in North Dakota and how the collaboration with North Dakota Studies and the SHSND has "extended the experience" for teachers and students all around the state. I'll also be reaching out to you both and the Lignite Research Council for future opportunities to provide a wrap-up on the project as needed at the conclusion of the grant period.



Please accept this letter as my monthly report for Mar. 1, 2016. If you'd like additional information on the project or clarification, please contact me at 701-224-2410 or emily.mckay@bismarckstate.edu. Thank you for your time!

Respectfully,

A handwritten signature in black ink that reads 'Emily McKay' in a cursive script.

Emily McKay, Principal Investigator and Project Manager
Energy Curriculum Project